

WHAT IS CLAIMED IS:

1. A system for communicating map data for vehicle navigation, comprising:

a vehicle terminal; and

a map data transmitting server that is interconnected with the vehicle terminal

5 through a wireless network,

wherein the vehicle terminal determines the range of cells of which cell data are required for navigation based on vehicle state information, and requests the map data transmitting server to transmit the cell data of the cells thereto.

10 2. The system of claim 1, wherein the vehicle state information includes a

vehicle speed, and the vehicle terminal determines the range of cells of which cell data are required in inverse proportion to the vehicle speed.

15 3. The system of claim 1, wherein the vehicle state information includes a

proceeding direction of the vehicle, and the vehicle terminal determines the range of cells of which cell data are required according to the proceeding direction of the vehicle.

20 4. The system of claim 1, wherein the vehicle state information includes a scroll

speed of the vehicle terminal, and the vehicle terminal determines the range of cells of which cell data are required in inverse proportion to the scroll speed of the vehicle terminal.

5. The system of claim 1, wherein the vehicle state information includes a scroll direction of the vehicle terminal, and the vehicle terminal determines the range of cells of which cell data are required according to the scroll direction of the vehicle
5 terminal.

6. The system of claim 1, wherein the vehicle state information includes a road classification, and in the case that the classification of the road on which the vehicle is positioned is determined to be a highway or an exclusive right-of-way for vehicles,
10 the vehicle terminal determines the range of cells of which cell data are required based on a divergent point or an interchange on the road.

7. The system of claim 1, wherein the vehicle state information includes a transmitting speed of a wireless network, and the vehicle terminal determines the
15 range of cells of which cell data are required in proportion to the transmitting speed of the wireless network.

8. A method for communicating map data for vehicle navigation utilizing a server for transmitting map data through a wireless network to a vehicle terminal, said
20 map data being divided into a plurality of data cells, the method comprising:
gathering vehicle state information;
determining a range of cells of which cell data are required based on the

vehicle state information;

requesting a map data transmitting server to transmit the cell data to the vehicle terminal; and

receiving the cell data transmitted from the server correspondingly to the

5 request.

9. The method of claim 8, wherein the vehicle state information includes a vehicle speed, and the range of cells of which cell data are required is determined in inverse proportion to the vehicle speed.

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10. The method of claim 8, wherein the vehicle state information includes a proceeding direction of the vehicle, and the range of cells of which cell data are required is determined according to the proceeding direction of the vehicle.

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11. The method of claim 8, wherein the vehicle state information includes a scroll speed of the vehicle terminal, and the range of cells of which cell data are required is determined in inverse proportion to the scroll speed of the vehicle terminal.

12. The method of claim 8, wherein the vehicle state information includes a

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scroll direction of the vehicle terminal, and the range of cells of which cell data are required is determined according to the scroll direction of the vehicle terminal.

13. The method of claim 8, wherein the vehicle state information includes a road classification, and if the classification of the road on which the vehicle is positioned is determined to be a highway or an exclusive right-of-way for vehicles, the range of cells of which cell data are required is determined based on a divergent point or
- 5 interchange on the road.
14. The method of claim 8, wherein the vehicle state information includes a transmitting speed of the wireless network, and the range of cells of which cell data are required is determined in proportion to the transmitting speed of the wireless
- 10 network.
15. A vehicle terminal connected to a server for transmitting map data divided into a plurality of data cells through a wireless network, comprising:
- 15 a network interface for communicating with the map data transmitting server;
- a receiver for gathering vehicle state information;
- a network interface for transmitting data through the wireless network; and
- a processing unit determining a range of cells of which cell data are required based on the vehicle state information, and processing map data received through the
- 20 network interface;
- a memory for storing the received map data; and
- a display device for displaying the received map data.

16. The vehicle terminal of claim 15, wherein the vehicle state information
includes one or more of a vehicle speed, a proceeding direction of the vehicle, a scroll
speed of the vehicle terminal, a scroll direction of the vehicle terminal, a road
classification, and a transmitting speed of the wireless network.